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HERPETOLOGICAL COLLECTIONS MADE IN
HISPANIOLA BY THE *UTOWANA*
EXPEDITION, 1934.¹

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THROUGH the kind hospitality of Mr. Allison V. Armour, Dr. and Mrs. Thomas Barbour and their daughters Julia and Louisa recently visited the Bahama Islands and Hispaniola on Mr. Armour's yacht, the *Utowana*. The joint efforts of the party resulted in securing much fine herpetological material during the time allowed for exploring the different places at which the expedition touched. Dr. Barbour has generously turned over to me for study the 475 lizards, 88 snakes and 17 frogs taken in Hispaniola and its outlying islets, including several forms new to science. While in Port-au-Prince, Dr. Barbour's friend, M. André Audant, of the Service National de la Production Agricole, gave him some reptiles and amphibians from Peak La Selle, a range of mountains known to contain rare and specialized forms of animal life. M. Audant's collection from the peak has yielded a new genus and species of iguanid lizard and a new species of frog of the genus *Eleutherodactylus*, which are named for him.

The entire collection is now in the Museum of Comparative Zoölogy in Cambridge, Massachusetts, excepting 22 specimens, mostly paratypes, donated to the United States National Museum. When no collector's name is given in the following report, it is to be understood that Dr. Barbour and his wife and daughters collected the specimens.

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The Bahaman material will before long be reported upon by Dr. Barbour.

CLASS AMPHIBIA.

ORDER SALIENTIA.

Family Hylidæ.

Hyla dominicensis (Tschudi).

Hysiboas dominicensis Tschudi, Class Batr., Mém. Soc. Sci. Nat. Neuchâtel, vol. 2, 1838, p. 30.

3 (M. C. Z. 19701-3) Cap Haïtien, Haiti, were taken in March, 1934.

Eleutherodactylus audanti, sp. nov.

Diagnosis.—Belly and thighs heavily granular; upper eyelid without a spinelike tubercle; toes and fingers rounded at the tips; snout somewhat truncate in profile, not shovel shaped; femur very short; tibio-tarsal articulation usually not reaching eye. Young specimens pink (or white in preservative) spotted very unsymmetrically with brown; older specimens increasingly darker and more evenly colored; adults dark drab-grey, usually with a brown interorbital bar, always with a dark triangular postanal mark extending onto the lower posterior part of the femur.

Description of the type.—An adult, M. C. Z. 19704, from Peak La Selle collected by André Audant. Tongue moderately broad, very slightly emarginate behind; vomerine teeth in two very short, straight, widely separated patches between and well behind the choanæ, their outer ends not extending as far as the inner borders of the choanæ; head moderate, without ridges, its greatest width equal to distance from end of snout to occiput; no subgular pouch evident, although a distinct fold occurs across the chest between the forelimbs; nostril much nearer snout than eye, its distance from eye slightly less than the diameter of the latter; upper eyelid much narrower than interorbital space; tympanum equal to one-third the diameter of the eye, its distance from the eye somewhat less than its own diameter; disks of fingers moderate in size, that of the third finger covering about two-thirds the tympanic area; first finger much shorter than second; inner toes free, outer ones with a slight rudiment of a web; disks of toes about equal in size to those of the fingers; first toe reaching almost to base of disk of second toe; subarticular tubercles well developed; two prominent metatarsal tubercles; no plantar tubercles; no tarsal fold; femur very short; the limbs being pressed along the side, the knee and elbow are considerably separated; hind limb being extended forward, the heel reaches the tympanum; hind limbs being placed vertically to axis of body, heels just overlap; a series of elongate glands forming an interrupted dorso-lateral line from above tympanum to groin; another series of glands forming a middorsal line from tip of snout to vent; skin above shagreened, with rather regular glandular ridges or tubercles, especially

on the sacral region, where they lie diagonally on each side of the mid-line; throat smooth; chest, belly and thighs heavily granular.

Dimensions.—Tip of snout to vent, 25 mm.; width of head, 9 mm.; tip of snout to posterior tympanum, 9 mm.; diameter of eye, 3 mm.; fore leg from axilla, 13 mm.; hind leg from vent, 32 mm.; vent to heel, 17 mm.

Color in alcohol.—Dorsal surface drab-gray; a seal-brown interorbital bar; canthal region with a dark brown stripe; a narrow brown bar from eye to tympanum; a brown dorso-lateral stripe following the narrow glandular ridges of that region; an X-shaped brown mark behind the occiput and a Λ -shaped mark across the middle of the back; sides and sacral region with irregular, indistinct dark vertical bars; a wide, dark, light-edged crossband on the femur and another on the tibia, and paler ones on the feet; lower posterior part of femur and entire postanal region covered by a uniform dark seal-brown triangle; a brown diagonal mark on the lower proximal surface of the upper arm; forearm with some irregular dark vermiculations; lower surfaces drab gray to olive gray, immaculate; upper and lower lips with a faint brown spotting.

Paratypes.—Thirteen additional specimens of half-grown and adult frogs (M. C. Z. 19701-13, and U. S. N. M. 95111-3) were secured at the same time and place as the type. Three half-grown examples (U. S. N. M. 72595-7), rather badly mutilated, were secured at Morne Cabaio, Massif de la Selle on April 10, 1927, by Dr. A. Wetmore. Another young frog (U. S. N. M. 85009), was secured in the Morne La Selle Range at 7000 feet altitude in 1932 by Lt. Comder. S. S. Cook.

Variation.—The coloration in the half-grown specimens is rather remarkable because it not only fails to be constant in several individuals but also lacks bilateral symmetry in a single individual. The entire body of a young specimen (M. C. Z. 19705) is a pale pinkish buff (in alcohol), and there are a few pale brown dots on the back and some darker ones on the left leg, although there are no heavy patches of dark color anywhere on the left side. The right femur, on the contrary, has a large dark blotch on its posterior surface, and the anterior part of the right tibia and foot have some lighter blotches which are noticeably greater in area than those on the left tibia. Below the skin is pale and immaculate except for some brown spots on the lower aspect of both tibiae and tarsi, and the dark tips to the toes and fingers. The next example (19706) in the series grading from a light to a dark coloration, is also pale in body color. Its nostrils are outlined with brown; it has an unpaired brown spot on the posterior part of the right eyelid, then a small median occipital brown spot, another slightly larger on the median line between the shoulders, then no more dark pigment on the body except a small brown spot which occurs on the right side of the vent. On the legs a heavy brown blotch appears on the right anterior face of the femur, while the left anterior femur bears a

smaller and paler brown spot. No blotches appear on the posterior part of the femur in this specimen. There is a heavy dark band across the left tibia, and a small pale brown spot on the right tibia. The tarsi and feet are faintly spotted with brown. The forearms each have a brown band, that on the right the heavier. The ventral surface is immaculate, excepting the toe- and finger-tips; even the lower surfaces of the legs are free from spots. The next example (19707) in our series shows a considerable widening of the bars on the legs, so that most of the femur is dark, and the tibia has a wide dark median crossbar, while the tarsi are barred and the soles of the feet are dark. In this specimen some of the tips of the toes are pale. The skin of head and body is pale and immaculate, except for a large brown scapular blotch on the *left* shoulder only! The ventral surface is immaculate except for the continuations of the dark blotches on the legs and arms, and a dark patch at the insertion of the arm. The other examples evidently represent older phases of coloration. Some have a good deal of dark pigment appearing anteriorly on top of the head, while the back is more faintly blotched with dark, and the femur may be pale, crossbarred or dark. In some examples the lower surfaces are heavily spotted, in others only faintly so. The markings at this stage become more symmetrical also, and the dark postanal patch appears in most of the examples. The adult frogs are dark brown above, although a little of the original pale body color may show between the bars on the legs and above the postanal patch on the back of the femur. Some of the adults are more heavily spotted ventrally than is the case in the type specimen, but the variation among the adults is not as great as one might expect, considering the asymmetry of the young. The three young examples taken by Dr. Wetmore show the same peculiar asymmetry as do the young of the type series just described. The example taken by Lt. Commander S. S. Cook (U. S. N. M. 85009), belongs to the intermediate stage when darkening of the skin is well under way. A field note with this individual says that it was 'found under pine logs near the overnight camp' and that when caught it was 'distinctly green in color.'

The heel in two of the four adult paratypes is like that of the type in reaching the tympanum. The heels of the other two adults, as well as those of the young, reach to the posterior corner of the eye. All the adults agree in having a very glandular skin on the back, with a concentration of these glands in a dorso-lateral line, and numerous other patches of glands from the occiput to the sacral region and on the flanks. The skin of the ventral surface in all specimens is highly granular, the granules extending as far forward as the fold across the chest between the arms. In one adult paratype, the width of the head is slightly greater than the distance between snout and occiput.

Relationships.—The new species falls in the key in the subdivision with *E. montanus*, *auriculatoides*, *wetmorei* and *armstrongi*, all these having short

hind legs and a granular belly, and no unusual features in regard to shape of eyelid, snout or toe-tips. *E. audanti*, however, has a shorter femur than any of the related forms, and its heel does not generally reach beyond the tympanum, although in soft specimens it may be stretched to the posterior corner of the eye. Its unusual juvenile coloration is a feature which distinguishes it also from its allies.

Since writing the above, I have received twenty additional specimens of all ages from M. Audant, who has supplied the following notes on his collection:—

'The frogs and skinks [see *Wetmorena haetiana*] were collected under stones or in earthen tunnels under stones. The skinks were caught in soft soil, while I had to turn the stones to see the little frogs trying to conceal themselves. I am not positive about this, but I believe that these creatures whistle at night, because, while we were over there, we could hear the sounds of the animals, but we did not succeed in capturing them at night while whistling. The specimens were caught near the Rivière des Bois Pins, 200 feet south of the Caballo summit. The little frogs are brown in color and pink spotted when alive. That pink changes to white in the preservative.'

CLASS REPTILIA.

ORDER SQUAMATA.

SUBORDER SAURIA.

Family Gekkonidæ.

Sphærodactylus cinereus Wagler.

Sphaeriodactylus cinereus Wagler, Syst. Amph., 1830, p. 143.

Two males and a female of this species (M. C. Z. 37401-3) from Cul de Sac, Thomazeau, Haiti, were collected by André Audant. The largest, a male, measures 36 mm. from snout to vent; the tail, 40 mm.

Family Iguanidæ.

Anolis chloro-cyanus Duméril and Bibron.

Anolis chloro-cyanus Duméril and Bibron, Erp. Gén. vol. 4, 1837, p. 117.

11 (M. C. Z. 37404-13) Sanchez, Dominican Republic, Apr. 6, 1934.

3 (M. C. Z. 37414-6) Cap Haïtien, Haiti, Mar. 31, 1934.

6 (M. C. Z. 37417-20) Isle Tortue, Haiti, Apr. 2-3, 1934.

None of the lizards from Isle Tortue can be distinguished from those found on the mainland of Hispaniola. Evidently this is one of the least plastic of Hispaniolan species, not being subject to the great amount of local variation exhibited by the *Anolis dominicensis* group.

Anolis caelestinus Cope.

Anolis (Ctenocercus) caelestinus Cope, Proc. Acad. Nat. Sci. Philadelphia, 1862, p. 177.

19 (M. C. Z. 37421-30 and U. S. N. M. 95123-6) Isle Vache, Apr. 12, 1934. Also a non-plastic species related to *A. chloro-cyanus*.

Anolis cybotes cybotes (Cope).

Anolis cybotes Cope, Proc. Acad. Nat. Sci. Philadelphia, 1862, p. 177.

41 (M. C. Z. 37431-40) Cap Haïtien, Haiti, Mar. 30-31, 1934.

2 (M. C. Z. 37451 and U. S. N. M. 95120) Isle Tortue, Haiti, Apr. 2, 1934.

49 (M. C. Z. 37458-67) Sanchez, Dominican Republic, Apr. 6, 1934.

2 juv. (M. C. Z. 37468-9) Saona Id., Dominican Republic, April 8, 1934.

13 (M. C. Z. 37441-50) Isle Vache, Haiti, Apr. 12, 1934.

6 (M. C. Z. 37452-7) Thomazeau, Haiti, collected by André Audant.

If some adult lizards from Saona Island can be secured, it may be possible to separate a subspecies from that island, but with the immature material at hand, such a procedure would be unwise at present.

Anolis cybotes doris (Barbour).

Anolis doris Barbour, Proc. Biol. Soc. Washington, vol. 38, July 25, 1925, p. 101.

24 (M. C. Z. 37470-9) Anse à Galets, Gonave Id., Apr., 1934.

Anolis cybotes longitibialis (Noble).

Anolis longitibialis Noble, Amer. Mus. Novit., No. 64, Mar. 29, 1923, p. 4.

3 (M. C. Z. 37480-2) Beata Island, Dominican Republic, Apr. 11, 1934.

Anolis dominicensis dominicensis (Reinhardt and Lütken).

Anolis dominicensis Reinhardt and Lütken, Vid. Medd. nat. For. Kjöbenhavn, 1862 (1863), p. 261, extr. p. 109.

79 (M. C. Z. 37483-92) Cap Haïtien, Haiti, Mar. 30-31, 1934.

3 (M. C. Z. 37493 and U. S. N. M. 95121) Isle Tortue, Haiti, Apr. 2, 1934.

11 (M. C. Z. 37497-506) Sanchez, Dominican Rep., Apr. 6, 1934.

2 (M. C. Z. 37495-6) Thomazeau, Haiti, collected by A. Audant.

Anolis dominicensis caudalis Cochran.

Anolis dominicensis caudalis Cochran, Proc. Biol. Soc. Washington, vol. 45, Oct. 25, 1932, p. 185.

20 (M. C. Z. 37507-16) Anse à Galets, Gonave Id., Apr., 1934.

These further illustrate the differences between the race found on Gonave Island and the one occurring in Haiti and the Dominican Republic.

***Anolis dominicensis wetmorei* Cochran.**

Anolis dominicensis wetmorei Cochran, Proc. Biol. Soc. Washington, vol. 44, June 29, 1931, p. 89.

1 (M. C. Z. 37520) Beata Island, Dominican Republic, Apr. 11, 1934.

This is the second example to be recorded, as the type was unique. The 'series' is still too small to allow any observations on variation. Dr. Barbour found this species very rare, as a special effort was made to secure it. The feral cats and dogs will probably gradually exterminate all the land reptiles sooner or later. They are now far less abundant than when he visited the island a few years ago and a very large proportion of the lizards seen were tail-less.

***Anolis dominicensis juliae* subsp. nov.**

Diagnosis.—Dorsal scales juxtaposed, imbricate, granular, unlike the ventrals which are larger; a fairly regular paired median series of scales on the upper anterior portion of the snout; a distinct preoccipital scale half as large as the occipital itself; tail with very indistinct verticils, every ninth or tenth row of scales more vertical but not enlarged, the intervening scales in curving or irregular rows, the whole surmounted by a weakly serrate caudal crest with five triangular, keeled and pointed scales to a verticil, the first and fifth quite small, the others subequal.

Type.—An adult male, M. C. Z. 37517 from Isle Vache, Haiti, collected April 12, 1934, by the *Utowana* Expedition. Head short, with two very weakly developed ridges which slightly diverge in front of the eyes; forehead slightly concave between these ridges; head scales smooth, somewhat rugose around rostral, which is low and about half the width of the mentals; four scales between the nasals; a paired median series of rather rectangular, somewhat enlarged scales on the snout from the rostral to the middle of the frontal depression, where there is a median patch of smaller scales, the posterior ones not paired; supraorbital semicircles closely in contact; occipital slightly larger than ear opening, roughly circular in shape, with a smaller but equally noticeable preoccipital in contact with the supraorbital semicircles and completely filling the area between them and the occipital; the extreme outer points of the occipital nearly completely separated from the supraorbital semicircles by a small scale on each side; supraocular disk composed of nine or ten smooth polygonal scales of very unequal size, separated from the supraorbital semicircles by two to three rows of granular scales anteriorly, and by four rows posteriorly; two medium-sized scales bordering the inner anterior edge of the

second superciliary and surrounded by the supraocular granules; canthus rostralis rather strongly developed, the posterior two of the four enlarged scales which distinguish it having a comparatively heavy median ridge which projects over the loreal region; superciliary ridge continuous with the scales of the canthus rostralis, composed of one very elongate and sharply keeled scale followed by a double series of small but differentiated scales, the anterior of which is separated from the supraocular disk by four or five rows of granules; scales of the subocular semicircle keeled, narrowly in contact with the upper labials; supralabials about ten, the last four very small, the seventh coming below the center of the eye; temporal granules slightly smaller than the dorsals, with a rather poorly-marked double series of small scales forming the supratemporal line; back and sides covered with granules, the dorsals about the same in size and structure as the laterals; no enlarged series of median dorsal scales; ventrals small, smooth, imbricate, quite irregular in shape but often approximately square, only the most anterior being broader than long; throat covered with small, flat granules; skin of leg granular, with about five series of enlarged scales on the anterior face of the lower arm, none of these scales being much larger than the largest of the ventrals; anterior scales of femur and tibia smooth, similarly enlarged, gradually diminishing posteriorly and below; scales covering hands and feet above enlarged, perfectly smooth; digital expansion wide, about nineteen lamellæ under second and third phalanges of fourth toe, about thirty-five under the whole toe; tail moderate, slightly compressed, with very indistinct verticils, every ninth or tenth row of scales more vertical but not enlarged, the intervening scales in curving or irregular rows, the whole surmounted by a weakly serrate caudal crest, with five triangular, keeled and pointed scales to a verticil, the first and fifth quite small, the others subequal; skin of gular fan naked, set with distant series of small, flat scales considerably smaller than the ventrals; edge of fan not thickened posteriorly; postanal scales scarcely developed; no distinct nuchal or dorsal folds (in type specimen).

Dimensions.—Head and body, 48 mm.; tail (defective), 47+ mm.; snout to posterior ear, 14 mm.; snout to center of eye, 8.5 mm.; width of head, 9 mm.; fore leg, 22 mm.; hind leg, 40 mm.

Color (in alcohol).—Upper surfaces of head and back plumbeous, turning to pale china-blue above the shoulders and becoming azure blue on the center of the head, deepening to dark cerulean on the occipital scale; some faint gray mottlings, suggesting transverse bars across the back, more prominent on the head where they form a dark interorbital bar and outline the posterior orbital region; a few scattered gray marks on the temporal region; upper parts of legs and tail pale olive gray with faint irregular darker spots and bars; ventral surface pearl gray, the scales powdered with minute black dots; skin of dewlap claret brown on the

sides lightening to buff pink posteriorly and in the center, its scales pearl gray with minute dark dots.

Paratypes.—Three adult specimens, all of them males, were taken at the same time and place as the type (M. C. Z. 37518-9 and U. S. N. M. 95122).

Relationships.—The new subspecies shows its close relationship to *Anolis dominicensis dominicensis* of the mainland of Hispaniola particularly in its coloration, as it lacks the prominent scapular spots and lines which usually characterize the subspecies from Beata and Gonave Islands respectively. The scaling of the tail, the projection of the canthus rostralis and other features separate the Isle Vache species clearly from its neighbors on the mainland.

I take pleasure in naming the subspecies for Miss Julia Adelaide Barbour.

Anolis olssoni Schmidt.

Anolis olssoni Schmidt, Bull. Amer. Mus. Nat. Hist., vol. 41, 1919, p. 522. 1 (M. C. Z. 37521) Anse à Galets, Gonave Id., Apr., 1934.

1 (M. C. Z. 37522) Thomazeau, Haiti, collected by André Audant.

This species was taken at En Café, Gonave Id. by A. J. Poole and W. Perrygo in March, 1929 (U. S. N. M. 76797-8). It is apparently not common on that island.

Audantia, gen. nov.

Diagnosis.—Femoral pores absent; digits dilated and depressed, with smooth transverse lamellæ inferiorly, the distal joint narrower and compressed, raised above the penultimate; lateral teeth tricuspid; tail apparently not prehensile, compressed; tympanum distinct; body somewhat depressed, covered with small keeled granules above, and with imbricate smooth scales below; no nuchal or dorsal crests, and only a very slight serration on the tail. Male with both a transverse and a longitudinal gular fold; the transverse fold sometimes rather indistinct in preserved specimens; the short longitudinal fold often prominent, obscuring somewhat the presence of the transverse fold; sides of neck much wrinkled, with a transverse fold extending downwards in front of the shoulders. A pair of well-developed postanal plates in the male. The genus is named for its collector, M. André Audant, zoologist at the Government Agricultural School at Damien.

Audantia armouri, sp. nov.

Type.—Mus. Comp. Zool. 37523, an adult female from Peak La Selle, Haiti, collected by André Audant.

Description of the type.—Head relatively short and blunt, the distance from anterior corner of eye to tip of snout slightly more than one-half the greatest width of the head (just anterior to the ears); canthus rostralis sharp, composed of three or four keeled scales of which the second is considerably enlarged, the last merging indistinguishably into the superciliary ridge which has two very elongate scales followed posteriorly by a double row of much smaller ones; loreal region slightly concave, with six transverse rows of keeled, rectangular scales, the lowest one continued backwards, completely separating the suboculars from the upper labials; nostrils lateral, somewhat elevated, with four rugose scales between the supranasals; rostral nearly four times as broad as deep, a little narrower than the mentals, incompletely separated from the nasal scales by a row of small scales; frontal region with broad low ridges covered with large, nearly smooth, rhomboidal scales which converge anteriorly and surround a median group of six smaller, very unequal scales; scales of the frontal ridges continuous posteriorly with those of the supraorbital semicircles which are in contact; supraorbital region covered with three longitudinal rows of keeled scales, the inner (largest) row incompletely separated from the supraorbital semicircles by a partial row of small scales, the outer (smallest) row separated from the superciliaries by two or three rows of granular scales; occipital scale moderate in size, separated from the supraorbital semicircles by two scales; eight supralabial scales, each with a deep longitudinal median groove bordered below by a sharp keel in all except the two anterior ones; suture between sixth and seventh supralabials below center of eye; subocular semicircle composed of eight or nine keeled scales, separated from the supralabials by one row of elongate, keeled scales; a pair of triangular mentals closely in contact medially, their outer borders extending slightly beyond those of the rostral; eight or nine smooth infralabials, the first six subequal, the last ones quite small; a row of malar scales, quite distinct anteriorly where they border the mental and infralabials, becoming indistinct posteriorly and merging with the other rows of scales which border the posterior infralabials; temporal region granular; a weak lateral ridge extending from the posterior corner of the eye, covered with a double row of hexagonal scales, some of which are keeled; a group of enlarged, keeled scales in front of the tympanum, which is equal to half the eye-opening at its greatest diameter; no projecting scales on the tympanic border.

Body stout, somewhat depressed, its dorsal surface covered with tubercular granules with the two middorsal rows enlarged and keeled from the shoulder-level almost to that of the groin; no nuchal or dorsal folds; laterals granular, very small, not differentiated from the dorso-laterals; chin covered with rounded granules, large anteriorly, becoming much smaller posteriorly; a heavy gular fold running across the throat and behind the ears and ending in front of the shoulders in numerous heavy, plicate wrinkles, in which the granules are very minute; another fold extending transversely inwards across the front part of the chest; the longi-

tudinal gular fold scarcely apparent in this specimen; the skin between these folds, as well as that of the chest, covered with small, smooth, imbricate scales; scales of the belly also smooth, imbricate, but larger than those of the chest; no femoral or preanal pores; (a pair of prominent enlarged postanal scales in the male); tail compressed, apparently not prehensile, verticillate, with about five rows of smaller, keeled scales between verticils on the side of the tail, and about three enlarged scales to a verticil on top, the profile of these scales appearing very slightly serrate; fore and hind limbs granular above, scales below like those on the belly; digits dilated and depressed, with smooth lamellæ inferiorly, the distal joint narrower and compressed, raised above the penultimate; about 30 transverse lamellæ under the fourth toe. The hind limb being adpressed, the tip of the fourth toe reaches to the center of the eye.

Dimensions.—Snout to vent, 46 mm.; tail (reproduced), 43 mm.; hind leg, 37 mm.; fore leg, 23 mm.; width of body, 14 mm.; depth of body, 10 mm.; width of head, 10 mm.; snout to posterior border of tympanum, 14 mm.

Coloration in alcohol.—Upper surfaces dark sepia, with a paler sepia area along the mid-dorsal region; a wavy clove brown band beginning behind the eyes and running upwards and backwards to fade out at the pale sepia area on the nuchal region; a pair of small clove brown spots anterior to them on the nape; four transverse series of large, irregular, rhombic clove brown spots on the body, the anterior pair the most irregular in outline, the others larger and more definite; a continuation of these paired spots on the tail for a short distance; dark crossbars on upper surfaces of fore and hind limbs; labial scales with a brown spot in the middle of each; throat and ventral surfaces heavily mottled with light and dark drab; scales between the folds across the throat dull burnt umber; a wide band of black turning posteriorly to indigo blue across the anterior half of the belly; lower surfaces of tail dark drab.

The species is named for Mr. Allison V. Armour in recognition of the opportunities for travel and research which he has made possible to many naturalists for many years.

Paratypes.—Another example of this interesting new form, M. C. Z. 37524, accompanied the type specimen, having been given to Dr. Barbour by Monsieur Audant. Two additional specimens, which are the property of the museum at the Agricultural School at Port-au-Prince, have recently been sent to me by M. Audant for examination. In 1927 Dr. A. Wetmore secured four which unfortunately reached the National Museum in poor condition. These are U. S. N. M. 72593-4 from the head of Rivière Choctard, and U. S. N. M. 72598-9 from Morne Cabaio, both localities in Massif de la Selle. An immature individual, now U. S. N. M. 85008 was taken also on Morne La Selle at 7000 feet by Lt. Comder. S. S. Cook in 1932.

Variation.—With a series now numbering nine individuals, some attention may be given to variation. The keeling of the supraocular disks may be distinct, faint or absent. The supraorbital semicircles are fully in contact in four cases, barely touching in one case, and separated by a row of scales in four cases. The number of loreal rows is 4 in one case, 5 in six cases, and 6 in two cases. The lowest loreal row extends backwards, completely separating the subocular from the upper labials in four examples; the separation is partial in one instance, and the lowest loreal row stops anterior to the subocular in the remaining four. There may be 5, 5½ or 6 upper labials to a point beneath the center of the eye. The lamellæ under the fourth toe vary between 27 and 31. In three of the lizards the longitudinal gular fold is the more apparent, partly or almost completely obscuring the transverse fold. In one, the transverse and the longitudinal folds are equally prominent. In one specimen, the type, the transverse fold is by far the more apparent. The other four examples, including the two males, were too badly preserved in the region of the throat to show any characters there. The degree to which either the longitudinal or the transverse fold shows apparently depends a great deal on the preservation.

The two males (U. S. N. M. 72593 and 72594), having a pair of prominent, enlarged postanals, measure 44 mm. and 59 mm. respectively from snout to vent. The five females are between 43 mm. and 50 mm., while the two young specimens without enlarged postanals (U. S. N. M. 72599 and 85008) are 36 mm. and 37 mm. respectively from snout to vent.

The verticils on the tail are only slightly apparent in any of the specimens. Each verticil is composed of a straight vertical row of somewhat enlarged and more regular scales, preceded by four or five very irregular, curving and sometimes incomplete rows of scales.

The four transverse sets of two or three dark rhombic or quadrangular spots on each side of the mid-dorsal region are evident in most of the specimens. In two, the spots are reduced to several narrow, elongate, dumbbell-shaped marks which join across the back, with the wide light dorsal stripe very apparent. In one young example, U. S. N. M. 72599, the light dorsal stripe is bordered on each side by two dark stripes which do not yet show a tendency to break up into rhombs or squares.

Relationships.—While the possession of dilated toes allies the new genus indisputably to *Anolis* and its close relatives, the squat flattened body and the wrinkles on the side of the neck suggest at first glance a *Leiocephalus* or a *Plica*, to neither of which genera can *Audantia* be truly closely related. The possession of the transverse gular folds might suggest a closer correlation to *Deiropyx*, but as a matter of fact these two genera do not resemble one another closely when actually seen together.

In body build, as well as somewhat in coloration, *Audantia armouri* is slightly suggestive of *Anolis cybotes cybotes* also of Hispaniola, but there the resemblance ends, for the well-developed longitudinal gular fold of

the latter, as well as its distinctly verticillate tail and many other details, separate them readily.

Audantia is the third new genus of lizard to be described from Haiti in the past seven years, and one of the two others (*Wetmorena*) also came from Massif de la Selle.

***Leiocephalus melanochlorus* Cope.**

Leiocephalus melanochlorus Cope, Proc. Acad. Nat. Sci. Philadelphia, 1862, p. 184.

31 (M. C. Z. 37525-34) Isle Vache, Haiti, Apr. 12, 1934.

Numerous examples of this species were collected on Isle Vache in 1930 by L. H. Parish and W. Perrygo, but even with the help of so large a series it has not yet been possible to distinguish any features which would separate the Isle Vache lizard from the one on the Hispaniolan mainland.

***Leiocephalus personatus aureus*, subsp. nov.**

Diagnosis.—Anterior part of snout much swollen (in adult male), appearing highly convex when seen in profile; no lateral fold; three scales between rostral and supraocular ring; frontals and prefrontals smooth; frontals separated from canthals by a wedge-shaped scale; throat with a series of about four regular transverse rows of spots running across it, the posterior ones continued as stripes onto the labials and nearly to the upper part of the head; under surfaces of legs and tail gamboge yellow.

Type.—An adult male, U. S. N. M. 75909, from Jaemel, Haiti, collected by J. S. C. Boswell in 1928.

Description of the type.—Headshields enlarged, the posterior distinctly ridged, the anterior smooth; anterior part of snout much swollen (in adult male), appearing highly convex when viewed in profile; three scales (an internasal and 2 prefrontals) between the rostral and the supraorbital ring; posterior prefrontals much the larger; nasals in contact with rostral; internasals in contact with each other behind rostral, broader than long; prefrontals separated from the canthals by a wedge-shaped scale; two heavy, rounded canthal scales followed by four elongate superciliaries; six distinctly ridged supraoculars, the posterior one quite small, separated from the superciliaries by one row of small keeled scales; occipital very small, bordered by two distinct pairs of parietals on each side, the inner about eight times the area of the occipital and about one-third that of the outer pair; no distinctly enlarged latero-nuchals beyond the outer parietals; three very elongate upper and five lower labials to a point below the center of the eye; temporal scales increasing posteriorly in size, the last one (just above and in front of the ear), abruptly larger and very conspicuous; anterior border of the ear with three large, coarse, projecting scales. Dorsal

scales large, imbricate and moderately mucronate; laterals considerably smaller than the dorsals; ventrals equal to dorsals in size, smooth, their posterior edges denticulate; about 44 scales around middle of body; about 48 scales from occiput to a point directly above the vent; about 11 dorsal scales the equivalent of the distance from snout to occiput; nuchal scales small, those on the sides of the neck like the dorsals, those behind the ear keeled and imbricate, not granular. Shoulder folds present; no lateral folds. The adpressed hind limb reaches almost to the posterior corner of the eye. Digits compressed; the fourth toe with 23 tricarinate lamellæ. A distinct crest beginning on the occiput, moderately developed on the back and becoming a little higher on the proximal part of the tail; the other caudal scales mucronate and keeled above, smooth below; no verticils. The keels of the lateral and dorsal scales are directed upwards and backwards, so that the scale rows converge on the posterior part of the back; the convergence is less pronounced anteriorly. Tail somewhat compressed proximally, so that its section would appear squarish. A pair of enlarged postanals in the male.

Dimensions.—Snout to vent, 68 mm.; head to posterior ear, 17 mm.; tail (reproduced) 82 mm.; fore leg, 25 mm.; hind leg, 40 mm.; width of head, 14 mm.

Color in alcohol.—Body color dull sage green above, with a wide light dorso-lateral stripe beginning behind the eye, running above the ear and continuing along the sides onto the tail; this light stripe bordered above and below by wide sepia stripes; scarcely any traces of dorsal crossbars in the adult male; throat indigo blue with a series of about four regular transverse rows of spots running across it, the posterior ones continued as stripes onto the labials and nearly to the upper part of the head; mental and rostral shields with pale buff immaculate borders; chest and belly wax yellow, the under surfaces of fore and hind legs and tail deepening to gamboge yellow; sides of body dull indigo with some brighter china-blue scales edged with sepia; no spots or bars on posterior part of body or tail or on upper parts of limbs (in adult male); no dark axillary spots; top of head and loreal region dull drab with a powdering of minute gray dots.

Paratypes.—Four other adults, U. S. N. M. 75910-13, and two young ones, U. S. N. M. 75914-5, were collected at the same place and time as the type specimen. Four fine half-grown individuals, now M. C. Z. 37535-8, were taken at Jacmel, the type locality, by M. André Audant. An example from the Artibonite Valley, Haiti, U. S. N. M. 75916, collected by J. S. C. Boswell also appears to belong to this subspecies although it may represent an intergrading form.

Relationships.—Because of the peculiarly swollen nose, this new subspecies strongly suggests its close neighbor *Leiocephalus personatus* per-

sonatus, which likewise has a highly convex profile in the adult male. But the new subspecies is even more suggestive of the one found on Beata Island, *Leiocephalus personatus beatus*, for both have essentially the same coloration—wide dark and light stripes on the body without crossbands in the adult, and with the spots on the chin arranged regularly in transverse rows which continue on the sides of the head. The hind legs and tail of the Beata lizard are suffused with a brilliant cadmium orange or cinnamon, while these regions of the Jaemel lizard are similarly but less vividly colored with gamboge. The coloring everywhere is brighter in the Beata lizard, and the dark crossbars in that race occur not only on the throat but well back onto the chest also, unlike the condition in the new subspecies.

***Leiocephalus personatus beatus* (Noble).**

Leiocephalus beatus Noble, Amer. Mus. Novit., No. 64, Mar. 29, 1923, p. 5.

15 (M. C. Z. 37539-50) Beata Id., Dominican Republic, Apr. 11, 1934.

Freshly preserved examples of this handsome species are easily distinguishable from its allies in color characters alone.

***Leiocephalus personatus louisæ*, subsp. nov.**

Diagnosis.—No lateral fold; three scales between rostral and supraocular ring; frontals and prefrontals rugose; throat with numerous scattered black crescentic spots, each extending over one or two scales; hind leg reaching to between ear and eye; dorsal scales relatively small, about 15 in a head-length.

Type.—An adult male, M. C. Z. 37551, from Saona Island, Dominican Republic, collected April 8, 1934, by the *Utowana* Expedition.

Description of the type.—Head shields enlarged, the anterior slightly rugose, the posterior ones more strongly ridged; three scales (an internasal and 2 prefrontals) between the rostral and the supraorbital ring; posterior prefrontals much the larger; nasals in contact with rostral; internasals somewhat elongate, barely separated from each other by the first of a series of three median scales; prefrontals separated from the canthals by a wedge-shaped scale; two heavy, rounded canthals followed by three long and narrow superciliaries which precede a short one and a longer terminal one; six distinctly ridged supraoculars separated from the superciliaries by two irregular rows of small keeled scales, and from the frontals by a single, quite regular row of scales; occipital small, bordered by two distinct pairs of parietals on each side, the outer the smaller; the inner parietal plate about four times the size of the occipital, and in contact with its fellow behind the occipital; a group of five or six small latero-

nuchal scales, none of them more than one-fourth the area of the outer parietal; four upper labials to a point below the center of the eye; middle of fifth lower labial under center of eye; temporal scales gradually increasing in size, the last one, just above and in front of the ear, the largest and most conspicuous; anterior border of the ear with five coarse projecting scales, the middle ones the largest. Dorsal scales moderate in size, imbricate and mucronate; laterals somewhat smaller than the dorsals; ventrals considerably larger than the dorsals, smooth, their posterior edges denticulate; about 48 scales around the middle of the body; about 58 scales from the occiput to a point directly above the vent; about 15 dorsal scales the equivalent of the distance from snout to occiput; nuchal scales small, those on the sides of the neck like the dorsals, those behind the ear keeled and imbricate, not granular. Shoulder folds present; no lateral folds. The adpressed hind limb reaches to half-way between the ear and the eye. Digits compressed, the fourth toe with 24 tricarinate lamellæ. A pronounced crest beginning on the occiput, equally developed on the back and on the proximal part of the tail; the other caudal scales mucronate, keeled above, faintly keeled below; no verticils. The keels of the lateral and dorsal scales are directed upwards and backwards so that the scale rows converge strongly on the back. Tail (stump) slightly compressed. A pair of enlarged post-anals in the male. Size rather small.

Dimensions.—Snout to vent, 55 mm.; head to posterior ear, 15 mm.; tail incomplete; fore leg, 22 mm.; hind leg, 41 mm.; width of head, 12 mm.

Coloration in alcohol.—Body color pea green above, with a prominent dorso-lateral light stripe beginning on the upper temporal region and continuing to the end of the body where it gradually fades out; the dorsal scales between these light stripes mottled with dark sage green, with traces of black pale-edged crossbands appearing on neck and above shoulders; a pale olive-buff lateral stripe beginning on the loreal region, continuing beneath the eye and through the ear, and gradually fading out in the groin; the area between the lateral and dorso-lateral light stripes sepia, with many of the scales tipped with cadmium orange or turquoise blue; four or five irregular black spots in the anterior part of this sepia stripe, the foremost covering the scales over the ear, the last one above the shoulder, followed by a small black axillary spot; top of head pale drab, immaculate, except for a pair of sepia spots on the outer parietals; labials pale olive buff clouded with drab, with a few sepia spots near the commissure of the lips and on the sutures of the lower labials; mental and rostral shields drab; ventral surfaces pale blue, deepening in color on the belly; throat with numerous scattered black crescentic spots, each extending over one or two scales; region about groin and under surface of tail heavily spotted with cadmium orange, with this same color appearing in some of the lateral scales together with turquoise blue; upper part of limbs sage green suffused with gray mottlings, the forearms with black spots on the elbows;

the crest of the tail sage green mottled with turquoise blue, the other caudal scales suffused with dull orange.

Paratypes.—There are four paratypes, including two young, taken at the same time and place as the type (M. C. Z. 37552-4, and U. S. N. M. 95117).

Relationships.—This subspecies is undoubtedly derived from the recently described *Leiocephalus personatus lunatus*¹ which lives on the mainland near Santo Domingo City, as the peculiar pattern on the throat and sides of neck testifies. But the spotting on the throat is not so heavy in the subspecies from Saona Island, nor are the spots on the side of the neck so regular in shape. The mainland form is larger in size, while the scales appear to be more mucronate.

I take pleasure in naming the new Saona subspecies for Miss Louisa Bowditch Barbour.

Leiocephalus schreibersii (Gravenhorst).

Pristinotus schreibersii Gravenhorst, Nova Acta Acad. Caes. Leop.-Carol., vol. 18, pt. 2, 1838, p. 739, pl. 54, figs. 15-16.

45 (M. C. Z. 37555-64) Isle Tortue, Haiti, Apr. 2-3, 1934.

1 (M. C. Z. 37565) Jaemel, Haiti, collected by André Audant.

This species has been known to occur on Isle Tortue ever since 1917 when Dr. W. L. Abbott took it there (U. S. N. M. 59442-54). It appears to be as abundant on the islands north of Haiti as does its ally *Leiocephalus melanochlorus* on Isle Vache off the south coast of Haiti.

Family Anguidæ.

Wetmorena hættiana Cochran.

Wetmorena hættiana Cochran, Proc. Biol. Soc. Washington, vol. 40, June 30, 1927, p. 91.

1 (M. C. Z. 37566) Peak La Selle, Haiti, collected by André Audant.

This, and one other recently loaned to me by M. André Audant, are the only examples known to have been taken since the original series of 5 individuals was secured by Dr. Wetmore on April 10, 1927.

Family Teiidaë.

Ameiva rosamondæ, sp. nov.

Diagnosis.—Eight rows of ventral plates; caudal scales oblique, distinctly keeled above, smooth on sides and bottom of tail; nostril anterior to the

¹A new lizard, *Leiocephalus personatus lunatus*, from the Dominican Republic, by Doris M. Cochran. Occ. Papers Boston Soc. Nat. Hist., vol. 8, July 13, 1934, p. 153.

nasal suture; three large supraoculars, the first not in contact with loreal; a black dorso-lateral band beginning behind the eyes, widening greatly on the body and continuing on the tail; no light spots except on anterior surface of femur; 40 lamellæ under the fourth toe; 25 scales in the fifteenth verticil of the tail.

Type.—An adult, M. C. Z. 37567, from Saona Island, Dominican Republic, collected on April 8, 1934, by the *Utowana* Expedition.

Description of the type.—Profile of head flat on top, curved only at the very end of the snout; nostril anterior to the nasal suture; rostral forming a right angle behind; anterior nasals broadly in contact behind the rostral; frontonasal as long as wide, narrowly in contact with the large loreal; prefrontals broadly in contact; frontal in contact with three supraoculars on each side; three large supraoculars, the anterior one not touching the loreal; a very minute scale behind the third supraocular; frontoparietals in close contact with the third supraocular; seven superciliaries, the three anterior ones on the left side in contact with the first supraocular, the two anterior on the right; the remaining superciliaries separated from the posterior supraoculars by a row of granules; two frontoparietals, followed by a transverse row of five subequal occipitals, these in turn being followed by three rows of irregular post-occipitals; ear-opening large; five upper labials to a point directly beneath the center of the eye, the third and fourth the longest; the keeled subocular nearly reaching to the lip between the fifth and sixth supralabials; first infralabial very minute; sixth infralabial under center of eye; the wedge of granular scales on the chin extending to the posterior border of the first pair of chin shields, which are nearly completely in contact; chin and throat covered with granular scales, with a patch of enlarged scales in the middle; mesoptychium covered with two rows of rather regular, enlarged scales bordered by one or two smaller rows. Dorsal scales granular, uniform, 37 in the standard distance (from tip of snout to center of eye); laterals similar but smaller. Ventral plates in eight longitudinal series bounded by two very small external series, and in 35 transverse series; brachials and antebrachials well separated; six wide straplike scales across the forearm; post-brachials present as a group of three or four larger and several smaller scales at the elbow, all the post-brachials considerably larger than the dorsal granules; femoral pores 18; anterior face of thigh covered with five or six rows of flat scales; two tibial rows, the external row composed of four scales, the second and third very large; no enlarged postanals; a pair of enlarged plates at the anterior border of the anus and two single median scales in front of them, the anterior the smaller; 25 scales in the fifteenth verticil of the tail. The hind leg being adpressed, the fourth toe reaches to the anterior edge of the tympanum. Hands and feet long and slender, the small 'combs' very evident on the toes; fourth toe with 40 lamellæ beneath it; fifth toe longer than first. Tail (reproduced) slender, long, almost square in section in its

proximal half; the scales obliquely set, strongly keeled above, becoming keeled to smooth on the sides, smooth below.

Dimensions.—Head and body, 100 mm.; tail (reproduced), 199 mm.

Coloration in alcohol.—Ground color lilac-gray on the back, washed with fawn color on the head and turning to pale blue and glaucous-blue on the tail; a black dorso-lateral band beginning behind the eyes, widening greatly on the body and continuing on the tail; this black band edged below by a narrow light area which becomes a definite white stripe in the groin and breaks up on the anterior surface of the femur into a number of light spots but continues down the tail as a definite stripe; lower half of loreal, labials and throat orange-buff lightening to buff-yellow on the center of the throat; rest of under surfaces of body and limbs glaucous-blue suffused anteriorly with cream color; tail azure blue beneath, with a black stripe on each side beginning a short distance behind the anus and fading out before the middle of the tail is reached.

Relationships.—The new species at once suggests *Ameiva barbouri* in its striking coloration, and this relationship is fully borne out by details of scalation. They both have eight⁸ longitudinal rows of ventral plates (in my original diagnosis of *Ameiva barbouri*, there were said to be ten rows, but the number is afterward correctly stated in the complete description), the caudal scales are oblique and keeled, and both have three large supra-oculars. The new species differs from *barbouri* in having a longer fourth toe, a greater number of scales around the tail, a wider black dorso-lateral band, and in being somewhat larger in size.

The new species is named for Mrs. Barbour. Dr. Barbour saw but two individuals of this beautiful species. They were excessively shy and he secured the unique type with great difficulty on account of its being almost impossible to use a collecting gun in the very dense, thorny scrub.

Ameiva chrysolæma chrysolæma (Cope).

Ameiva chrysolæma Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 20, 1868, p. 127.

34 (M. C. Z. 37568-77) Anse à Galets, Gonave Id, Apr. 9, 1934.

Ameiva chrysolæma abbotti (Noble).

Ameiva abbotti Noble, Amer. Mus. Novit., No. 64, Mar. 29, 1923, p. 1.

5 (M. C. Z. 37578-82) Beata Id, Dominican Republic, Apr. 11, 1934.

Ameiva chrysolæma woodi, subsp. nov.

Diagnosis.—Scalation similar to that of *Ameiva chrysolæma chrysolæma*, but with usually ten subequal longitudinal ventral rows and with a row

of small scales as the only traces of the two additional rows which are well developed in the typical form; a wide black dorso-lateral stripe invaded by spots of the ground color, these spots tending to form vertical bars by running together, making a rather prominent series of irregular vertical bars when this pattern is fully carried out.

Type.—An adult male, M. C. Z. 37583, from Isle Tortue, Haiti, collected on April 3, 1934, by the *Utowana* Expedition.

Description of the type.—Profile of head flat on top, curved at the end of the snout; nostril anterior to the nasal suture; rostral forming a right angle behind; anterior nasals broadly in contact behind the rostral; frontonasal as wide as long, narrowly in contact with the large loreal, very broadly angulate in front; prefrontals broadly in contact; frontal in contact with the two anterior preoculars; three large preoculars, the anterior one not touching the loreal, the third partly separated from the frontoparietal by granules; seven superciliaries, the first two in contact with the first supraocular, the remaining superciliaries separated from the other supraoculars by two rows of granules; two frontoparietals followed by a transverse row of five occipitals, the median one much smaller than the two adjoining it, these in turn followed by about three rows of very unequal post-occipitals; ear-opening large; the sixth (last) supralabial below the center of the eye, the third and fourth the longest; sixth lower labial also directly below the eye, the third and fourth the longest; the wedge of granular scales on the chin scarcely entering between the first pair of chin shields, which are in contact for three-fourths of their length; chin and throat covered with granular scales, only slightly enlarged on the central gular region; mesoptychium covered with one or two irregular rows of enlarged scales, bordered by some successively smaller ones. Dorsal scales granular, uniform, about 60 in the standard distance from tip of snout to center of eye; laterals similar but smaller. Ventral plates in ten longitudinal series bounded by two exceedingly small external ones, and in 38 transverse series; brachial scales conspicuously enlarged, in three or four fairly regular rows, the longest of these rows having about a dozen scales, each about as wide as long; three or four conspicuously widened post-brachial scales surrounded by smaller scales soon merging with the surrounding granules; antibrachials in about three rows of enlarged scales, the median the widest, having four or five large straplike scales across the wrist; brachials and antibrachials separated by numerous small scales; femoral pores 21 (left) and 22 (right); anterior face of thigh covered with eight or nine rows of enlarged flat scales; 4 tibial rows, the external row composed of six scales of which the second and third (proximal) are much larger than the others; no enlarged postanals; four enlarged plates at the anterior border of the anus, the median pair the largest, with a single large scale in front of these and a smaller single scale preceding it; 40 scales in the fifteenth verticil of the tail. The hind leg being ad-

pressed, the fourth toe reaches to the posterior edge of the tympanum. Hands and feet long and slender; the small combs very evident on the toes; fourth toe with 42 lamellæ beneath it; fifth toe slightly longer than first. Tail (reproduced) nearly twice the length of head and body, rather depressed in its proximal portion, the scales straight, keeled above and on the sides, smooth below proximally.

Dimensions.—Head and body, 125 mm.; tail (reproduced), 233 mm.

Color in alcohol.—Ground color pea green to dull china-blue above, with a wide black dorso-lateral stripe invaded by spots of the ground color which tend to form vertical bars by running together, making a rather prominent series of irregular vertical bars when this pattern is fully carried out; four dark dorsal stripes, much narrower than the lateral stripes, the inner pair quite indistinct anteriorly, the outer pair with a row of light spots appearing posteriorly; upper surface of tail china blue with rather regular black spots; lower lips immaculate pale china-blue; sides of head, chin and ventral surfaces french-gray, suffused with olive-buff on the belly, legs and tail. A few light turquoise blue spots on the anterior forearm and tibia, as well as on the edges of the ventral plates; posterior thigh and upper part of tibia with a dark reticulation.

Paratypes.—There are 34 paratypes (M. C. Z. 37584-92 and U. S. N. M. 95127-32) of all ages taken on April 2-3, 1934, at the same place as the type. In addition, a rather mutilated specimen taken by Dr. W. L. Abbott on Isle Tortue on January 31, 1917, represents this subspecies, although its pattern is not fully developed, while the outer ventral row is composed of scales larger than those of most of the paratypes taken by the *Utowana* party.

Relationships.—The color pattern of more or less vertical bars on the black dorso-lateral stripe distinguishes the new species both from *c. abbotti*, an entirely spotted form, and from *c. chrysolæma*, in which the spots have not taken so regular an arrangement across the dark stripes. It appears to be very close to *c. chrysolæma*, however, in most other characteristics.

Named in honor of Corey F. Wood, Esq., for long years the American Consular agent at Cap Haïtien, who was a guest on the *Utowana*. His hospitality at Cap Haïtien greatly facilitated Dr. Barbour's collecting in that area.

Ameiva tæniura Cope.

Ameiva tæniura Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, 1862, p. 63.

2 (M. C. Z. 37593-4) Cap Haïtien, Haiti, Mar. 31, 1934.

Family Amphisbænidae.

Amphisbæna innocens Weinland.

Amphisbæna innocens Weinland, Abh. Senckenb. Naturf. Ges. (Frankfurt-a-M.) vol. 4, pt. 2, 1863, p. 137, pl. 5, fig. 2.

3 (M. C. Z. 37595-7) Thomazeau, Haiti, collected by André Audant.

SUBORDER SERPENTES.

Family Boidæ.

Epicrates fordii (Günther).

Pelophilus fordii Günther, Proc. Zool. Soc. London, 1861, p. 142.

1 (M. C. Z. 37601) Cap Haïtien, Haiti, Mar. 31, 1934.

There are about 70 dorsal spots on the body, much fused posteriorly, in this fine specimen of one of the rarest of the boid snakes. It has 36 scalerows at mid-body; 256 ventrals; an undivided anal; caudals 53 + missing tip; upper labials 12.

Epicrates striatus (Fischer).

Homalochilus striatus Fischer, Abh. Nat. Ver. Hamburg, vol. 3, 1856, p. 102, pl. 2, figs. 2a-2b.

1 (M. C. Z. 37598) Cul de Sac, Port-au-Prince, Haiti, collected by A. Audant.

Scale rows 55; ventrals 284; an undivided anal; caudals 51 +; upper labials 15 (right) and 16 (left); ocular ring complete on both sides (!); anterior prefrontals and supraoculars normal; posterior prefrontals broken up into very irregular small scales; 'frontal' represented by two scales between the supraoculars; loreal undivided, with two scales between it and the upper labials. Lateral dark band breaking up into very regular spots on the neck, continuing on anterior third of body before enlarging and becoming irregular or indistinct.

Tropidophis maculatus hætianus (Cope).

Unqualia hætiana Cope, Proc. Amer. Philos. Soc., vol. 18, 1879, p. 273.

2 specimens (M. C. Z. 37602-3) Isle Tortue, Haiti, Apr. 12, 1934.

The darker specimen (M. C. Z. 37602), partly mutilated, has 27 scale-rows, 190 ventrals, an undivided anal, 36 caudals, 10 upper labials, one pre- and three postoculars, and dorsal spots between 55 and 58, being unequally fused on the right and left sides.

The lighter one (M. C. Z. 37603) has 27 scale rows, 185 ventrals, an undivided anal, 39 caudals, 10 upper labials, one pre- and three postoculars, and between 51 and 55 dorsal spots.

Neither has an interparietal. In the dark specimen, both pairs of prefrontals are distinct on the left side, but appear to be fused on the right. In the lighter specimen, both pairs of prefrontals are completely fused on both sides. The lighter one has a few enlarged mid-dorsals on the posterior part of the back; the dark one does not have any conspicuously enlarged dorsals anywhere.

Family Colubridæ.

Uromacer catesbyi (Schlegel).

Dendrophis catesbyi Schlegel, Phys. Serp., vol. 2, 1837, p. 226.

3 (M. C. Z. 37604-6) Cap Haïtien, Haiti, Mar. 31, 1934.

1 (M. C. Z. 37607) Isle Tortue, Haiti, Apr. 2, 1934.

16 (M. C. Z. 37608-23) Isle Vache, Haiti, Apr. 12, 1934.

1 (M. C. Z. 37599) Cul de Sac, Port-au-Prince, Haiti, collected by A. Audant.

Uromacer dorsalis Dunn.

Uromacer dorsalis Dunn, Proc. New England Zool. Club, vol. 7, Jan. 20, 1920, p. 43.

3 (M. C. Z. 37624-6) Anse à Galets, Gonave Id., Apr., 1934.

Uromacer frenatus (Günther).

Ahætulla frenata Günther, Ann. Mag. Nat. Hist., (3), vol. 15, 1865, p. 94, pl. 2, fig. B.

16 (M. C. Z. 37627-42) Isle Vache, Haiti, Apr. 12, 1934.

Uromacer oxyrhynchus Duméril and Bibron.

Uromacer oxyrhynchus Duméril and Bibron, Erp. Gén., vol. 7, 1854, p. 722, pl. 83, fig. 1.

3 (M. C. Z. 37643-5) Isle Tortue, Haiti, Apr. 2, 1934.

18 (M. C. Z. 37646-63) Cap Haïtien, Haiti, Mar. 31, 1934.

1 (M. C. Z. 37600) Cul de Sac, Port-au-Prince, Haiti, collected by A. Audant.

Hypsirhynchus ferox Günther.

Hypsirhynchus ferox Günther, Cat. Col. Snakes Brit. Mus., 1858, p. 49.

3 (M. C. Z. 37664-6) Carrefour, Haiti, collected by André Audant.

Alsophis anomalus (Peters).

Zamenis anomalus Peters, Monatsber. Berlin Akad. Wiss., 1863, p. 282.
1 juv. (M. C. Z. 37667) Isle Tortue, Haiti, Apr. 2, 1934.

Scales 21, ventrals 213, anal divided, caudals 126, upper labials 9 (right) and 8 (left), one pre- and three postoculars. Its headscales are similar in every respect to those of U. S. N. M. 49934 from Santo Domingo City, the latter slightly larger and albinistic in color. In the M. C. Z. specimen, faint dark narrow crossbars are visible posteriorly, with even fainter suggestions of chevron-shaped blotches on the neck and anterior part of body. The head shields have very narrow dark margins. The entire under surface is pale, with a powdering of gray dots across the posterior border of each ventral.

Dromicus parvifrons rosamondæ, subsp. nov.

Diagnosis.—Melanistic in coloration, the dorso-lateral line being reduced to a pale straight stripe through the middle of the sixth scale row on the body, widening slightly on the neck to embrace the lower part of the seventh scale row; each scale of the outer row of dorsals with a large black spot; a similar spot on the outer ends of the ventrals; ventrals 148-153; caudals 115-131.

Type.—An adult male, M. C. Z. 37668, from Isle Vache, Haiti, collected April 12, 1934, by the *Utowana* Expedition.

Description.—Rostral broader than deep; internasals slightly shorter than prefrontals; length of frontal slightly exceeds its distance from the end of the snout, a little shorter than the parietals, separated from the preocular; supraocular about two-thirds as wide as the frontal; nasal divided, a little longer than its distance from the eye; loreal moderate in size, rectangular, a little broader than deep; one preocular; two postoculars, the upper the larger; temporals 1 + 1 on the right side, 1 + 2 on the left; 8 upper labials, the second in contact with the posterior nasal and loreal but not reaching the preocular, the third, fourth and fifth entering the eye; 10 lower labials, five in contact with the anterior chin shields and two with the posterior ones, which are slightly larger than the anterior; scales in 19 rows, without pores; ventrals 149; anal divided; caudals 131.

Color (in alcohol).—Top and sides of head and body black; a pale blue dorso-lateral stripe beginning rather indistinctly on the canthus rostralis, continuing above the eye and through the temporal scales, and becoming much more distinct on the sides of the neck, where it occupies the upper part of the sixth and the lower part of the seventh scale rows, and narrowing on the body to some elongate white spots down the middle of the sixth scale row, with some fainter pale marks on the upper margins of

the fifth scale row; the black dorsal area, which is $\frac{1}{2} + 7 + \frac{1}{2}$ scales wide, showing traces of a pair of very narrow broken white lines composed of the white margins between the eighth and ninth scale rows (in the type specimen), these broken lines very faint on the neck, more pronounced on the anterior part of the body but disappearing completely at mid-body; labials pale china-blue, lightening on chin, this color darkening on belly where it becomes heavily suffused with indigo; a remnant of a pale lateral stripe from the labials along the sides of the neck on the second and third scale rows, and another on the lower half of the first scale row, both these fading out on the first third of the body; a large black spot at the outer border of each ventral plate, also continued on the tail nearly to its end; a median series of indistinct black spots on the third to the seventeenth ventrals, thereafter appearing as a pair of black spots gradually diverging from the center posteriorly and becoming quite small and indistinct just anterior to the vent; tail black above, with a faint continuation of the light dorso-lateral stripe; lower part of tail pearl gray with a mottling of small indigo spots.

Dimensions.—Head and body, 406 mm.; tail, 301 mm.

Paratypes.—There are five additional specimens, M. C. Z. 37669-72 and U. S. N. M. 95116, taken at the same time and place as the type. In addition, U. S. N. M. 80919 was taken on Isle Vache by C. R. Orcutt on June 5, 1929. A badly spoiled specimen, U. S. N. M. 84292, also from Isle Vache, was taken by L. H. Parish and W. Perrygo in 1930.

Variation.—The specimens are uniformly melanistic, and the width of the dorso-lateral light stripe is greatly reduced in all of them, so that by this color character alone this subspecies may be told from all the other related forms inhabiting Hispaniola and its neighboring islets. The traces of a pair of narrow intermediate white lines are almost lacking in two of the paratypes, and are less distinct in the three others than in the type. In two of the paratypes the dorso-lateral light stripe occurs only on the sixth scale row on the neck.

The ventrals vary between 148 and 153, the caudals between 115 and 131. A decided tendency towards having a single scale in the second temporal series is noticeable, since two of the paratypes resemble the type in having a single scale on one side of the head, one paratype has a single scale on both sides of the head, while only two specimens have the normal temporal count of $1 + 2$ scales on both sides.

Relationships.—The amount of melanism in the new subspecies from Isle Vache places it between *D. p. lincolni* which has the light stripes more undulating, and *D. p. niger*, in which the stripes are almost entirely lacking. In position the stripes on the sixth, or sixth and seventh, scale rows correspond to those of *D. p. tortuganus*. And in its low scale-count, the new subspecies seems to agree with some of the snakes in the subspecies

protenus having the lowest scale-counts. Its tendency towards having a single scale in the second temporal series is a character peculiar to this subspecies. It is on the whole an easily recognizable form.

I take pleasure in naming this new subspecies in honor of Mrs. Thomas Barbour.

***Dromicus parvifrons protenus* (Jan).**

Dromicus protenus Jan, Icon. Gén., vol. 25, 1867, pl. 3, fig. 2.

2 (M. C. Z. 37673-4) Cap Haïtien, Haiti, Mar. 31, 1934.

1 (M. C. Z. 37675) Thomazeau, Haiti, collected by A. Audant.

1 (M. C. Z. 37676) Cul de Sac, near Port-au-Prince, Haiti, collected by A. Audant.

***Dromicus parvifrons tortuganus* (Dunn).**

Leimadophis tortuganus Dunn, Proc. New England Zool. Club, vol. 7, Jan. 20, 1920, p. 40.

7 (M. C. Z. 37677-81 and U. S. N. M. 95114-5) from Isle Tortue, Haiti, Apr. 2, 1934.

***Ialtris dorsalis* (Günther).**

Philodryas dorsalis Günther, Cat. Col. Snakes Brit. Mus., 1858, p. 126.

1 (M. C. Z. 37682) Isle Vache, Haiti, Apr. 12, 1934.

Scales 19, ventrals 189, anal divided, caudals 68+, upper labials 7, oculars 1 + 2, temporals 1 + 2. About ten regular black blotches on the neck and anterior part of the body. Black W-mark very conspicuous on parietals. Labials each with a round black spot; chin and anterior ventrals also spotted. the spots soon changing to a dark edge on each ventral.